

REMARKS

This paper is intended as a full and complete response to the Office Action dated August 21, 2007, having a shortened statutory period for response set to expire on January 21, 2008. Applicant respectfully requests entry and consideration of the following amendments and remarks.

A request for a three-month extension of time and the required fee has been submitted with this response.

Claims 1 - 28 are currently pending in the Application.

Claim 1, 5, 11, 12, 24, and 25 are currently amended in this Response.

I. Drawings

The Office Action objected to the drawings, indicating that Figure 4 and Figure 5 require a legend.

Applicant has attached Replacement Sheets for Figure 4 and Figure 5 to this Response.

Reconsideration of the objection to the drawings is respectfully requested.

II. Claim Rejections -- 35 USC § 112

The Office Action rejected Claims 1-11 under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended Claim 1 to replace the recitation "communicating the signal from the second antenna to a second radio transceiver and then to a second radio processor card than then to a client device" with "communicating the digital Ethernet signal from the second antenna to a second radio transceiver, then to a second radio processor card, and then to a client device."

Applicant believes that no new matter has been added through this amendment.

Claims 2-11 depend upon Claim 1. Because Applicant believes that Claim 1, as amended, overcomes the stated rejections under 35 U.S.C. §112, Applicant believes that Claims 2-11 also overcome the stated rejections.

Reconsideration of the rejection of Claims 1-11 is respectfully requested.

Applicant's method includes attaching the housing directly to a supporting cable strand, using a mounting bracket, and Claims 1 and 12 have been amended to more clearly describe the direct connection between the housing and the supporting cable strand. Support for this amendment is found in Applicant's Paragraph [00025] and Figure 1, which describe and depict the housing connected directly to supporting strand 18 using mounting brackets 10 and 11.

Applicant has amended Claims 5 and 11 to provide antecedent basis parallel to Claim 1.

Applicant has amended Claims 24 and 25 to provide antecedent basis parallel to Claim 12.

III. Claim Rejections – 35 USC § 103

The Office Action rejected claims 1, 4-5, 7-13, 15, and 18-28 under 35 USC § 103(a) as being unpatentable over *Moore, Jr. et al.* (US 7,035,270) in view of *Chang et al.* (US 2003/0033608), further in view of *Hopkins et al.* (US 5,737,194).

Applicant teaches a method for wirelessly communicating information that overcomes many of the difficulties associated with providing access to HFC networks, by attaching a housing containing a bidirectional high speed data modem directly to a supporting cable strand that simultaneously supports a coaxial cable carrying both an RF spectrum signal and an AC power signal. (Applicant's Specification, as filed, Paragraph [00058])

Moore describes a gateway arrangement for providing interworking functionality between an external HFC network and a network of devices within a "home" or similar environment. (*Moore*, Column 2, Lines 32-37) The home networking gateway 30 described by *Moore*, through an embedded home network interface 32, supports telephony and data services, using a digital signal processor 50 to perform voice processing, run compression algorithms, and process signals. (*Moore*, Column 3, Line 36 - Column 4, Line 6)

Moore states that the home network gateway 30 is powered locally, through a customer power network, or alternatively through use of a battery 60. (*Moore*, Column 4, Lines 40-43)

Applicant's method, in contrast to *Moore*, teaches utilizing power directly from the coaxial cable, rather than from a secondary source. (Applicant's Specification, as filed, Paragraph [00026] and Figure 1)

Applicant teaches use of a coaxial cable that carries both an RF spectrum signal and an AC power signal simultaneously. (Applicant's Specification, as filed, Paragraph [0007]) Applicant's method uses a splitter to split the RF spectrum signal from the AC power signal, converts the AC power signal to DC power using a switching power supply, and uses the power from the switching power supply to run the bidirectional high speed data modem, in addition to the first radio transceiver, the first radio processor card, and at least one heating or cooling device. (Applicant's Specification, as filed, Paragraphs [0008]-[00011])

Applicant's method thereby enables use of a bidirectional high speed data modem using only a single coaxial cable with a splitter, which can be readily installed for use in any facility with a minimum of time and construction. Applicant's housing is capable of wireless communication, and therefore can be attached to a supporting cable strand or other supporting structure outside of a facility. Applicant's method therefore avoids the need for construction or hardwiring, making Applicant's method ideal for use by customers in commercial facilities, that can perform Applicant's method using equipment through a window, without requiring roof rights. (Applicant's Specification, as filed, Paragraphs [0001] and [0006])

Applicant's method is therefore both less expensive and more efficient to install and operate than conventional methods of wirelessly communicating information, allowing customers to access internet, voice, fax, and data services in any type of facility. (Applicant's Specification, as filed, Paragraph [0005])

Additionally, unlike *Moore*, Applicant's method includes connecting the housing containing the bidirectional high speed data modem directly to the supporting cable strand using a mounting bracket. (Applicant's Specification, as filed, Paragraph [00025] and Figure 1) Use

of this direct connection provides the benefit of allowing installation of Applicant's housing without requiring contact with a utility pole or similar municipal structure, which avoids the requirement of a permit in many cities and municipalities. (Applicant's Specification, as filed, Paragraph [00056])

Further, Applicant's method is capable of incorporating any cable modem or router that meets the enclosure size and power requirements of the housing. (Applicant's Specification, as filed, Paragraph [00056]) This feature allows modems to be interchanged to meet the needs for specific applications, or when damaged, without requiring modifications to any other equipment in the housing. (Applicant's Specification, as filed, Paragraph [00056])

Applicant's method can thereby be used by any facility, user, or service provider by accommodating a large variety of modems, through use of a switching power supply, which can provide varying voltages depending on the power requirements of the modem used. (Applicant's Specification, as filed, Paragraph [00056])

The direct connection and flexibility of modems and routers useable with Applicant's method enables Applicant's method to be used to provide point-to-point, point-to-multipoint, and "Hot Spot" communications interchangeably, at any location, which is a significant benefit over existing methods, such as those described by *Moore*. (Applicant's Specification, as filed, Paragraph [00056])

Chang describes a non-wireless cable system in which an RFM 300 is coupled between a BTI drop interface 302 and a home interface 304. (*Chang*, Figure 3 and Paragraph [0029]) A splitter 310 is used to divide the line coupled to the BTI drop interface 302 into a line coupled to a cable modem in the BTI and a bypass line to the home interface 306. (*Chang*, Paragraph

[0029]) The BTI cable modem is coupled to one terminal of the splitter 310, while the separate forward and return paths are coupled to the other terminal. (*Chang*, Paragraph [0030])

Chang, unlike Applicant, does not teach splitting an RF spectrum signal from an AC power signal for purposes of allowing both AC power and an RF signal to be provided through a single coaxial cable to a housing for a wireless communication device.

Chang, unlike Applicant, describes using a splitter to subject one line to a series of filters and relays controlled by the BTI cable modem, while allowing another line to bypass such filters. (*Chang*, Paragraphs [0030] – [0032])

In contrast to *Chang*, Applicant teaches using a splitter to split the RF spectrum signal from the AC power signal, transmitting the RF spectrum signal into the interchangeable bidirectional high speed data modem, and transmitting the AC power signal to the switching power supply for conversion to DC power to run the bidirectional high speed data modem and other equipment within the housing. (Applicant's Specification, as filed, Paragraphs [00036]-[00039])

Chang also fails to teach a direct connection to a supporting cable strand using a mounting bracket, as taught by Applicant, which avoids contact with utility poles and similar public structures and/or facilities.

Applicant's use of direct connection to single cable that simultaneously supports a coaxial cable carrying an RF spectrum signal and an AC power signal provides power directly from the coaxial cable to the bidirectional high speed data modem, while providing a versatile and efficient method of installation useable in any facility. (Applicant's Specification, as filed,

Paragraph [00026]) Applicant's method is thereby extremely inexpensive and efficient to install and power.

Hopkins describes a non-wireless input/output module that functions as a gateway in a high speed digital processing system, having a plurality of circuit assemblies and an enclosure. (*Hopkins*, Column 2, Lines 1-7)

Hopkins, unlike Applicant, fails to teach use of a direct connection to a supporting cable strand that that simultaneously supports a coaxial cable carrying an RF spectrum signal and an AC power signal. *Hopkins* instead describes that one of three circuit board assemblies within each input/output module is a power supply circuit board assembly 21. (*Hopkins*, Column 4, Lines 40-45) The power supply assembly 21 receives single phase voltage through a subrack and converts the power to channel specific requirements. (*Hopkins*, Column 5, Lines 47-50)

Applicant's method, in contrast to *Hopkins*, uses a coaxial cable, which carries both an RF spectrum signal and an AC power signal, a splitter, and a switching power supply to run the bidirectional high speed data modem and other equipment. Applicant's switching power supply can produce a variety of voltages, allowing any type of modem that can fit within Applicant's housing to be used interchangeably. (Applicant's Specification, as filed, Paragraph [00056]) *Hopkins* instead teaches use of a plurality of fixed circuits that function as a unit.

Claims 4-5 and 7-11 depend upon Claim 1 and contain all the limitations thereof. Claims 13, 15, and 18-28 depend upon Claim 12 and contain all the limitations thereof. Because Applicant believes that Claim 1 and Claim 12, as amended, are patentable over *Moore* in view of *Chang*, further in view of *Hopkins*, Applicant believes that Claims 4-5, 7-11, 13, 15, and 18-28 are also patentable over the art of record.

Reconsideration of the rejection is respectfully requested.

The Office Action rejected Claims 2, 3, 6, 14, 16, and 17 under 35 USC § 103(a) as being unpatentable over *Moore, Jr. et al.* (US 7,035,270) in view of *Chang et al.* (US 2003/0033608) and *Hopkins et al.* (US 5,737,194), further in view of *Mikhak* (US 7,149,474).

Mikhak describes a wireless cable replacement system in which a personal area network includes a device with a first wireless transceiver, and an adapter having a second wireless transceiver in communication with the first wireless transceiver, and a plug capable of mating a jack to a local backbone. (*Mikhak*, Column 1, Lines 38-42) Various networked devices are integrated using a gateway device to provide signal processing. (*Mikhak*, Column 3, Lines 30-39)

Mikhak fails to teach the elements of Applicant's method not taught by *Moore*, *Chang*, and *Hopkins*.

Because Applicant believes that Claim 1 and Claim 12, as amended, are patentable over *Moore* in view of *Chang* and *Hopkins*, further in view of *Mikhak*, Applicant believes that Claims 2, 3, 6, 14, 16, and 17 are also patentable over the art of record.

Applicant appreciates the Examiner's time and attention to this matter. Applicant believes no new matter has been added with any amendments that have been made. Applicant

believes claims as now provided are in condition for allowance. Reconsideration of this application is respectfully requested.

Respectfully submitted,



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